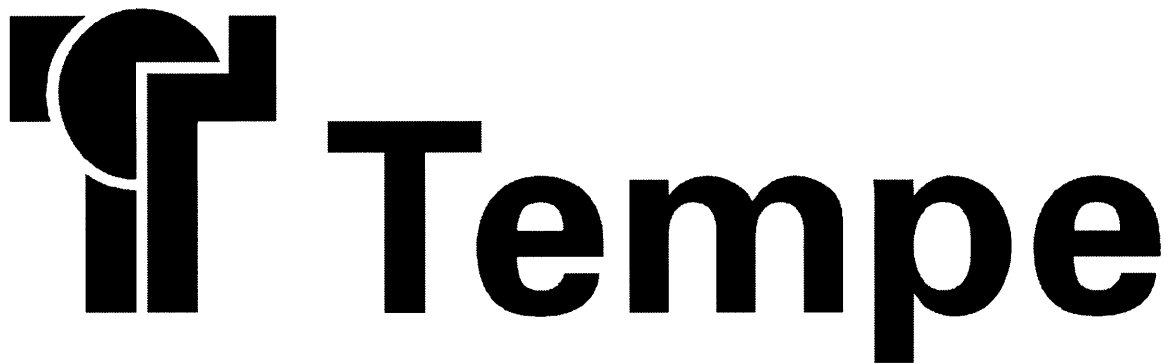


***Policy and Procedures for the Sizing and Cleaning of
Interceptor/Traps for the Food Service Industry***



City of Tempe
Environmental Division
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Installation of Grease Interceptors

Grease interceptors shall be required for all food preparation establishments which would contribute or cause to contribute, directly or indirectly, any wastewater which contains oil or grease, including but not limited to, restaurants, cafeterias, cafes, and fast food outlets. Additionally, grease interceptors shall be required for all schools, fraternal organizations, churches, hospitals, and daycare centers which have the capability to engage in food preparation. Any food preparation facility that installs an automatic dishwasher shall install a grease interceptor.

Sizing of the interceptor shall be completed using drainage Fixture-Unit value as defined in the Plumbing Drainage Institute (PDI) Appendix A, Table A1.7. Using the drain outlet or trap size, these sizes are converted to discharge rates on the basis of one Fixture-Unit equaling 7.5 GPM.

Fixture Outlet or Trap Size (inches)	Drainage Fixture-Unit Value	GPM Equivalent
1 ¼	1	7.5
1 ½	2	15.0
2	3	22.0
2 ½	4	30.0
3	5	37.5
4	6	45.0
Floor drains (all sizes)	2	15.0
Dishwashers	Double trap arm size	

The type of food served and preparation methods employed shall be taken into consideration. The following formula shall be used to calculate the size of the interceptor:

1. Determine total Fixture-Unit value by multiplying Fixture type count by drainage value.
2. Total all values.
3. Determine total flow by multiplying total value by flow rate of 3 GPM.
4. Multiply total flow by 12 if no garbage disposal unit is used.
5. Multiply total flow by 17 if garbage disposal unit is used.
6. Round to the next nearest size interceptor – a minimum of a 500-gallon interceptor is required.

The following is an example of a restaurant that will have one 3-compartment sink discharging indirectly into a 2 ½ -inch floor drain, one mop sink that has a 3-inch drain, two 2-inch floor sinks, and four floor drains.

Type of Fixture	Fixture Count	Size	Fixture-Unit Value	Total
3-comp. sink	1	2 ½"	4	4
Mop sink	1	3"	5	5
Floor sink	2	2"	3	6
Floor drain	4	N/A	2	8
Total Fixture-Units				23
Multiply by 3 GPM Flow Rate				X 3
Total GPM Flow Rate				69
Multiply by either 12 or 17 – without or with garbage disposal unit				X 12
Size of interceptor calculated				828
Round up to next available size				1050

The interceptor shall be:

- A minimum of a 500-gallon capacity two-chamber concrete container (fiber glass and/or other type material must approved by the Water Utilities Department).
- An interceptor with a capacity of 750-gallon or larger shall be a three-chamber concrete container.
- Installed with the interior inlet piping having a ninety-degree elbow with a minimum of an 18-inch down spout.
- Installed with the outlet side piping of the interceptor supplied with a sanitary-tee with a minimum of an 18-inch down spout.
- Installed with a "two-way" cleanout on both the inlet and outlet sides of the interceptor immediately before and after the interceptor.
- The appropriate traffic rated or non-traffic rated cover shall be installed. At no time shall these covers be marked in any way with "City of Tempe".

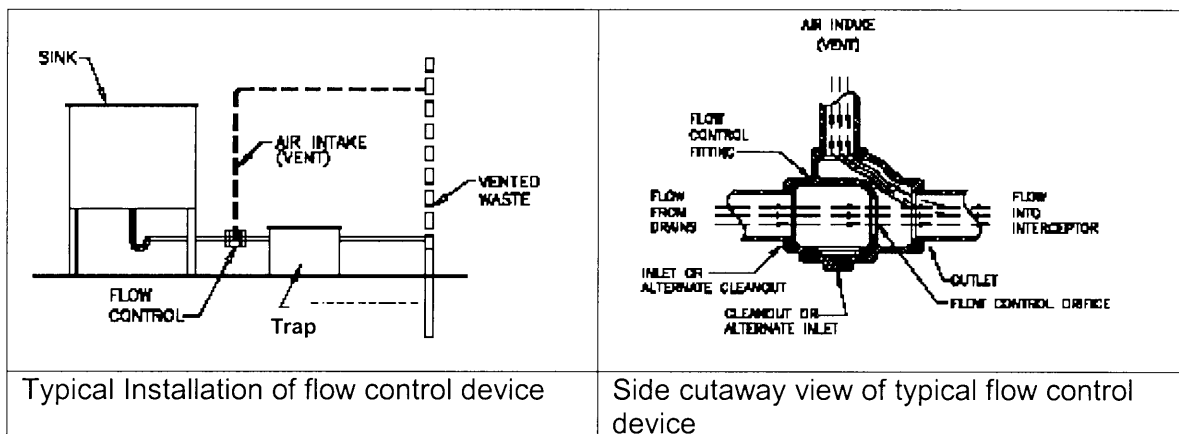
Installation of Grease Traps

Interior grease traps shall be allowed only when there are minimal fixtures being used for food preparation. The following are examples of those facilities that may install a grease trap in lieu of a grease interceptor:

Delicatessens, sandwich shops, coffee shops, and pizza take out facilities (only pizza being served), and ice cream parlors. These facilities must have limited preparation of pre-cooked meals/food, minimal cooking, food preparation and where minimal cleanup from food service would take place.

In all cases the minimum grease trap shall be no smaller than a device rated at 50-gallon-per-minute flow with a 100-pound grease capacity (50/100) and carry the approval of the International Association of Plumbing & Mechanical Officials (IAPMO) and/or the Plumbing Drainage Institute (PDI).

A flow restriction valve shall be installed upstream of the grease trap and be constructed in such a fashion that it remains accessible for service, is properly vented and must remain in place at all times.



Each facility must obtain written approval from the Environmental Division of the Water Utilities Department for the installation of any type of pretreatment device including all interceptors and traps. In order to obtain approval, a plumbing permit must be obtained. Once the permit and plan review process has been completed, the Plan Check Engineer assigned to review your plans shall obtain written approval from Environmental staff. Contact the Development Services Department at (480) 350-8341 for further information on obtaining plumbing/building permits.

Maintenance

Maintenance of grease interceptors and grease traps shall be the sole responsibility of owner or operator to ensure proper operation in preventing any obstruction, interference or damage to the collection system.

Grease Traps

It is recommended that all grease traps be fully pumped on a 30-day cycle. Depending on the use and size of the trap, more frequent pumping may be required. No partial pumping shall be allowed. The sides, bottom, and baffles shall be scraped to remove all solids. After cleaning, the trap shall be filled with fresh water only provided by normal facility discharge from permanently installed fixtures. The use of water hoses to fill the trap may create a backflow hazard if at any time the hose is allowed to be placed below the flood plain of the trap. Contents removed from the interceptor shall be hauled and disposed of off-site in accordance with all City, County, State, and Federal regulations that may apply.

Grease Interceptors

All grease interceptors shall be pumped entirely at 25% total volume of accumulated solids and grease waste. No partial pumping shall be allowed. The sides, bottom, and baffles shall be scraped to remove all solids. Contents removed from the interceptor shall be hauled and disposed of off-site in accordance with all City, County, State, and Federal regulations that may apply.

After cleaning, the interceptor shall be filled with fresh water only provided by normal facility discharge from permanently installed fixtures. The use of water hoses to fill the interceptor may create a backflow hazard if at any time the hose is allowed to be placed below the flood plain of the interceptor. The pumping frequency shall be at a minimum of every 90 days. Depending on the use and size of the interceptor, more frequent pumping may be required. The Environmental Division will assist with the determination if requested.

Cleaning Methods

The Environmental Division recommends that only mechanical cleaning take place. It further recommends that no chemical or bacteriological additive be introduced into the grease interceptors. At no time shall any additive be introduced that causes emulsification and/or saponification to occur.

The Environmental Division will inspect all grease interceptors to ensure compliance with Tempe City Code requirements. The inspection frequency will be, at a minimum, every 12 months, unless the Environmental Division determines, at its discretion, more or less frequent inspections are required. The inspection criteria will include, but is not limited to, the following:

- Location and accessibility
- Capacity in gallons
- Identification of inlet and outlet compartments

- Identification of inlet and outlet piping systems
- Identification of missing and/or damaged systems
- Identification of chemical additives (bacterial or enzymatic uses)
- Approximate capacity (depth) of accumulated solids and grease layer
- Verification of maintenance records

Existing sources not connected to grease interceptors, or those sources connected to interior grease traps which contribute significant quantities of oil and grease wastes, shall be required to implement Best Management Practices (BMPs). In the event BMPs do not successfully reduce quantities of fats, oils and grease wastes being introduced to the collection system, those sources shall be subject to installation of upgraded grease interceptors. BMP inspections will include, but are not limited to, the following:

- Identification and description of plumbing fixtures
- Identification of facility grease reduction procedures
- Identification of facility grease rendering container, where applicable
- Identification of in-line interior grease trap
- Identification of in-line flow control device on grease traps
- Verification of in-line interior grease trap maintenance records
- Identification of chemical use (bacterial or enzymatic uses)
- Facility seating capacity
- Facility hours of operation
- Facility schedule of routine drain line maintenance

The Environmental Division will provide written notices to all facilities following inspections indicating if the above procedures are adequate and/or if improvement is required. For those facilities for which improvement is required, the Environmental Division shall assist the facility in the identification of the source/cause of the inadequacies noted on the written report. Once the source/cause of the inadequacies are identified, the Environmental Division will request that the facility correct the inadequacies as soon as practicable. In the case of cleaning, the action shall be within five working days. For mechanical correction such as plumbing/equipment change the Environmental Division and facility will reach a consensus, but the correction period shall not be longer than 120 days from date of written notice.

Those facilities determined to be in continued violation of Tempe City Code requirements will be provided a written notice of violation. Follow-up inspections will be completed to ensure compliance. Failure to comply will result in further enforcement actions, which ultimately could result in the termination of sewer service and imposition of fines.